

RYZHIK, D.I.; VASSERMAN, D.M.

Course and treatment of catarrhs of the upper respiratory tracts  
and nonspecific pneumonia in children. Sbor.nauch.trud.tashGMT  
22:94.99 '62. (MIRA 18:10)

1. Kafedra detskikh bolezney sanitarnogo fakul'teta (zav. kafedroy  
prof. I.S.Aleksandrova) Tashkentskogo gosudarstvennogo meditsinskogo  
instituta.

VASSERMAN, G.; KUNYAYEV, N.

Avtomobil' GAZ-67B, By) G. VassermanI. Moskva, Sel'khozgiz, 1949.  
191 p. Illus., Diagrms.  
Photostat Copy.

So: N/S  
743.21  
.V3

MOZOKHIN, N. G. - VASSERMAN, G. M.

Automobiles

Light automobiles GAZ-69 with improved adaptability to difficult terrain.  
Avt. trakt. prom. no.1, 1953

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

VASSERMAN, G. M., jt.au.

M-20 "Pobeda" automobile; description, construction and maintenance.

TL215.P67L5 1955

1. Automobiles, Russian. I. Vasserman, G. M., jt. au.

VASSERMAN, G.M.; KUNYAYEV, N.A.; LIPGART, A.A., professor, redaktor;  
~~PARVAYEV~~, Ye.N., tekhnicheskiiy redaktor

[GAZ-67B automobile] Avtomobil' GAZ-67B. Izd. 3-e, ispr. 1 dop.  
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry,  
1955. 186 p. (MIRA 8:6)  
(Automobiles)

*VASSERMAN, G.M.*

LIPGART, A.A.; VASSERMAN, G.M.; BAUMAN, I.M., inzhener, redaktor;  
MATVEYEVA, I.B., tekhnicheskij redaktor; SOKOLOVA, T.F., tekhnicheskij redaktor.

[M-20 "Pobeda" automobile; description of construction and maintenance]  
Avtomobil' M-20 "Pobeda"; opisaniye konstruktsii i ukhod. Izd. 2-e,  
ispr. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1955.  
311 p. (MIRA 8:4)  
(Automobiles)

VASSEMAN, G.; DEKHTYAR, B.

Rear axle of the "Volga" automobile. Avt.transp. 38 no.2:45-47 F  
'60. (MIRA 13:6)  
(Automobiles--Axles)

VASSERMAN, G. M.; DECHEV, V. I., kand. tekhn. nauk; OL'YAK, V. D., kand.  
tekhn. nauk

Selecting efficient shape and position of air intakes in  
prospective makes of the "Zaporezhets" automobile. Avt. prom. 28  
no.9:23-25 S '62. (MIRA 15:10)

1. Zaporezhskiy avtozavod "Kommunar" i Zaporezhskiy mashino-  
stroitel'nyy institut imeni V. Ya. Chubarya.

(Automobiles—Engines—Cooling)

L 40250-66

ACC NR: AP6020974

(A)

SOURCE CODE: UR/0113/66/000/003/0009/0010

AUTHOR: Vasserman, G. M.; Dechev, V. I. (Candidate of technical sciences); Ol'yak, Y. D. (Candidate of technical sciences) 46  
B

ORG: Zaporozhskiy "Kommunar" Automobile Plant (Zaporozhskiy avtozavod "Kommunar");  
Zaporozhskiy Machine Building Institute im. V. Ya. Chubar' (Zaporozhskiy mashino-  
stroitel'nyy institut)

TITLE: Determining the dimensions of air scoops for rear-engine cars

SOURCE: Avtomobil'naya promyshlennost', no. 3, 1966, 9-10

TOPIC TAGS: automotive industry, air breathing engine, vehicle engine cooling system,  
engine cooling fan, air intake system, wind tunnel

ABSTRACT: The authors determine the dimensions for air scoops in rear-engine cars. These air scoops should be designed to use the kinetic energy of the oncoming air. This is particularly true for the case of low-cc automobiles. This type of design economizes on the energy expended by the cooling fan. An expression is given for determining the flow of air through the air scoop where the flow is maintained by the motion of the automobile through air. Once the air has reached the motor compartment, most of it is expended for cooling, and only 4-7% is used for combustion. It is assumed that pressure in the air compartment is slightly above atmospheric. If the

Cord 1/2

UDC: 621.431.73.001.24

L 40250-66

ACC NR: AP6020974

motor compartment is not properly sealed, exhaust gases may enter the automobile. On the other hand, higher than atmospheric pressure in the motor compartment is useful from the standpoint of increased engine intake pressure, a lower power drain on the fan and better cooling system operation. An expression is given for determining the relationship between fan efficiency and crankshaft rpm. Another expression is given for determining the relationship between the speed of the automobile and crankshaft rpm. Using both of these expressions, the area of the air scoop cross section can be determined. These methods are applied to two automobiles: the ZAZ-970 and the ZAZ-966. A pressure curve was plotted from data of tests conducted in the wind tunnel at the Zaporozhskiy Machine Building Institute imeni V. Ya. Chubar' together with the average pressure factor which depends on the size and shape of the air scoop cross section. These tests were conducted on an automobile frame model. The proposed method for determining the cross section of the air scoop makes it possible to shorten experimentation on cooling systems. Computational data may be obtained from aerodynamic simulation. Selection of the proper cross section for the air scoop affects both the operating temperature of the engine and the cleanliness of the cooling air. Orig. art. has: 2 figures, 8 formulas.

SUB CODE: 21, 13/ SUBM DATE: none/ ORIG REF: 002

Card 4/2 MLP

GROZMAN, M.M.; VASSERMAN, G.S.

Methodology for the determination of calcium and magnesium in  
blood serum. Lab. deio no.9:554-556 '64. (MIPA 17:12,

1. Laboratoriya nezaraznykh bolezney sel'skokhozyays'tvennykh  
zhivotnykh Moldavskogo nauchno-issledovatel'skogo instituta  
zhivotnovodstva i veterinarii, poselok Krikovo, Orgeyevskiy  
rayon, Moldavskaya SSR.

VASSERMAN, I. I.

PA 10/49T36

USSR/Electronics  
Vacuum Tubes, Magnetron

Jun 48

"Revolving Spatial Charge in a Magnetron Equipped  
With a Compact Anode," I. I. Vasserman, Phys Inst,  
Leningrad State Ord of Lenin U, 7 $\frac{1}{2}$  pp

"Zhur Tekh Fiz" Vol XVIII, No 6

First article is devoted to static case. Calculates  
value of rotating current and compares results with  
experimental data. Submitted 20 Jan 48.

10/49T36

KALININ, V.L. and I.I. VASSILIAN

K voprosu ob elektronnykh kolebaniakh magnetrons. (Akademi Nauk SSSR. Izvestiia. Seriya fizicheskai, 1946, v. 10, no. 1. p. 103-110, diagrs., bibliography)

Title tr.: On the problem of electron oscillations in a magnetron.

ASX 2.M 2455 1946

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

PA - 2542

AUTHOR  
TITLE

VASSERMAN I.I.

Resonance Method for Determination of Electron Concentration  
and Collision Number in a Discharge Plasma.

(Rezonansnyy metod opredeleniya kontsentratsii elektronov i  
chisla stolknoveniy v plazme gazovogo razryada.- Russian)  
Zhurnal Tekhn. Fiz. 1957, Vol 27, Nr 3, pp 516 - 521 (U.S.S.R.)  
Received: 4/1957 Reviewed: 5/1957

PERIODICAL

ABSTRACT

A rather simple resonance method for the investigation of the  
plasma in the case of direct current operation is suggested.  
This method can be applied for various gases in a wide field  
of electron concentration and of long waves. A discharge tube  
is mounted between the plates of a flat condenser which is  
connected with a Thomson - circuit. The elaboration of the  
resonance curves, which were recorded on cold and burning  
tubes, result in the average values for  $n$  and  $\sqrt{\nu}$  (the  
parameters of the plasma). The results of the investigations  
of the plasma in mercury vapors at a pressure of  $10^{-3}$  torr  
in a high frequency field with 20 Kc are given. The experimental  
apparatus is described and the elaboration of the resonance  
curves is carried out. The relation between the inductivity of  
the plasma and their parameters  $n$  and  $\sqrt{\nu}$  are obtained. The  
electric conductivity of the plasma increases and their

CARD 1/2



18

C4

The production of  $\text{Na}_2\text{S}_2\text{O}_3$  without evaporating the al-  
kali. J. M. Vamerman. *J. Chem. Ind. (U. S. S. R.)* 18,  
No. 10, 4-9 (1941).—A strong  $\text{NaHSO}_3$  soln., treated with  
dry  $\text{Na}_2\text{CO}_3$ , gives a suspension of  $\text{Na}_2\text{S}_2\text{O}_3$  in  $\text{NaHSO}_3$  and  
on further treatment with  $\text{Na}_2\text{CO}_3$ , forms a suspension of  
 $\text{Na}_2\text{S}_2\text{O}_3$  in satd.  $\text{NaHSO}_3$ . At 80-90° this is treated with a  
20-30% excess of S in the presence of 0.5%  $\text{NaOH}$  to form  
a nearly satd. soln. of  $\text{Na}_2\text{S}_2\text{O}_3$ . This salts out the  $\text{Na}_2\text{S}_2\text{O}_3$   
as  $\text{Na}_2\text{CO}_3$ ,  $\text{Na}_2\text{SO}_4$ , and  $\text{NaCl}$  in the soln. They are  
filtered off and the  $\text{Na}_2\text{S}_2\text{O}_3$  is crystd. out at 40°. The soln.  
of  $\text{Na}_2\text{S}_2\text{O}_3$  in  $\text{NaHSO}_3$  can be treated with  $\text{Na}_2\text{S}_2\text{O}_8$  prepd.  
by dissolving fused  $\text{Na}_2\text{S}_2\text{O}_8$  in the mother liquor from pre-  
vious crystn. of  $\text{Na}_2\text{S}_2\text{O}_3$  and adding S. The reaction forms  
 $\text{Na}_2\text{S}_2\text{O}_8$ , which is purified and crystd. as in the 1st method.  
No evapn. is needed and the production cost is decreased  
25%.

H. M. Leicester.

VASSILIAN, I. M., Engr Cond. Tech. Sci.

Dissertation: "Obtaining 3-Hex Triacetylphosphate Through Diacetyl Phosphate Intermediate of Alkaline." Sci Inst on Fertilizers and Insecticides, Moscow, U.S.S.R., 1957.

SC: Vechernyaya Moskva, May, 1957 (Project #1736)

VASSERMAN, I.M.; RABINOVICH, Y.V., redaktor.

[Production of mineral salts] Proizvodstvo mineral'nykh solei.  
Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1954. 346 p.  
(Salts) (MLRA 7:8)

VASSERMAN, I.M.; BRAYNINA, Kh.Z.

Chemical "aging" of basic nickel carbonate precipitate and conditions affecting the use of sodium carbonate in the precipitation process.  
Zhur.prikl.khim. 31 no.11:1617-1624 N '58. (MIRA 12:2)  
(Nickel carbonates) (Sodium carbonates) (Precipitation (Chemistry))

S/080/61/034/001/010/020  
A057/A129

AUTHORS: Vasserman, I.M., Fomina, Ye.A.

TITLE: Study of Chemical Aging and the Effected Abnormal Aging of Precipitates on the Example of Basic Nickel Carbonate

PERIODICAL: Zhurnal Prikladnoy Khimii, 1961, Vol. 34, No. 1, pp. 90-99

TEXT: The present paper is the 4th report in a series on technology of the separation of substances from solutions by chemical precipitation. Chemical aging in the system precipitate - solution is caused by one or more secondary chemical reactions on the phase boundary, resulting in a change of chemical composition and physical properties of the precipitate. Hence the study of aging processes is important for chemical precipitations. In the previous experiments [Ref.1: I.M. Vasserman, Kh.Z.Braynina, ZhPKh, 31,11,1617 (1958). Ref.2: I.M. Vasserman, ZhPKh, 32,9,1959 (1959); Ref.3: I.M. Vasserman, Ye.A. Fomina, Kh.Z. Braynina, ZhPKH, 32,11,2619 (1959)] the authors investigated qualitatively chemical aging and the resulting abnormal aging of the precipi-

Card 1/24  
7

S/080/61/034/001/010/020  
A057/A129

Study of Chemical Aging and the Effected Abnormal Aging of Precipitates on  
the Example of Basic Nickel Carbonate

pitrate in the system  $\text{Ni}(\text{NO}_3)_2 - \text{Na}_2\text{CO}_3 - \text{H}_2\text{O}$ . In the present work these experiments were studied quantitatively. From the five possible types of secondary chemical reactions (Ref.2) two occur in the present system: 1) neutralization of the basic precipitate (basic nickel carbonate) by the acidic salt ( $\text{NaHCO}_3$ ) which is in the mother liquor and 2) hydrolysis of the basic precipitate. These two reactions were investigated and the reaction kinetics was determined studying the normal (physical) aging of basic nickel carbonate precipitates, the abnormal aging caused by hydrolysis and that caused by neutralization of the precipitate. Precipitation was carried out continuously by mixing  $\text{Ni}(\text{NO}_3)_2$  - and  $\text{Na}_2\text{CO}_3$  - solutions at  $90^\circ\text{C}$ , agitating the obtained suspension of basic nickel carbonate. In order to study the aging caused by neutralization, 1 liter of the continuously outflowing suspension was quickly cooled to  $60^\circ\text{C}$  and left at this temperature during mechanical agitation. Abnormal aging by hydrolysis was investigated by filtering off the precipitate, washing and preparing a suspension in distilled water with a ratio solid :

Card 2/24

27

S/080/61/034/001/010/020  
A057/A129

Study of Chemical Aging and the Effect of Abnormal Aging of Precipitates on the Example of Basic Nickel Carbonate

liquid = 1 : 200 and following agitation at 90°C. Normal aging was caused by mixing the filtered-off precipitate with the mother liquor (containing 120 g/l  $\text{NaNO}_3$ ) and agitating this suspension at 60°C. The duration of all agings was 120 hrs. Changes in chemical composition of the liquid and solid phase, as well as the physical properties of the precipitate were determined. Physical properties were determined by A.V. Nikolayev's method [Ref.4: ZhPKh, 20,3,189 (1947), Ref. 5: ZhAKh, 7,1,21 (1952)] obtaining the filtration coefficient, water capacity, specific volume, and specific surface (using methyl violet). By analyzing the system precipitate - solution the basicity was checked (i.e., the ratio milliequivalent  $\text{HCO}_3^-$  per milliequivalent  $\text{Ni}^{2+}$ ). In the precipitate the content of  $\text{Ni}^{2+}$  and  $\text{CO}_3^{2-}$ , and in the liquid phase pH was determined and the change in  $\text{HCO}_3^-$  - and  $\text{CO}_3^{2-}$  - content controlled by potentiometric measurements. The aged precipitates were X-ray-examined on a YPC-55 (URS-55) apparatus with cobalt source. Results concerning the normal aging of basic nickel carbonate in contact with synthetic mother liquor (not containing  $\text{HCO}_3^-$ ) are given in Tab.1, the kinetic curves in Fig.1-6,

Card 3/24

7

S/080/61/034/001/010/020  
A057/A129

Study of Chemical Aging and the Effect of Abnormal Aging of Precipitates on the Example of Basic Nickel Carbonate

X-ray patterns in Fig.7 and a microphotograph in Fig.8. No change in chemical composition of the precipitate or pH of the liquor was observed. The crystal lattice of the precipitate improves and the particle size increases. Results on abnormal aging by hydrolysis (i.e., of precipitates in contact with water) demonstrate (Tab.2, Fig.1-8) that the precipitate becomes more basic, the content of  $\text{CO}_3^{2-}$  drops to 16.1% and also pH decreases. Abnormal aging caused by neutralization occurs in opposite direction compared with aging by hydrolysis (Tab.3, Fig.1-8), i.e., physical properties of the precipitate deteriorate with a decrease in filtration ability, and particle size and volume (increase in surface area). The precipitate becomes less basic, the content in  $\text{CO}_3^{2-}$  and the pH of the suspension increase, while the content in  $\text{HCO}_3^-$  decreases. Comparison of experimental results indicate abnormal changes of the primary (crystal lattice and defects) and of the secondary structure (size and surface of particles, packing, dimension and characteristics of pores) of the precipitate. According to properties of the crystal lattice of basic nickel carbonate noted by other investigators [Ref.6: I. François-Rosetti, Card 4/2]

S/080/61/034/001/010/020  
A057/A129

Study of Chemical Aging and the Effect of Abnormal Aging of Precipitates on  
the Example of Basic Nickel Carbonate

B. Imelek, J. Chem. Phys., 51, 7-8, 451-460 (1954); Ref. 7: I. Longuet-Escard, I. Mering, C. r., 246, 8, 1231-4 (1958); Ref. 8: O. Baguo, C. r. 236, 6, 699-701 (1953); Ref. 9: I. V. Tananayev, M. Ya. Bikmel'der, ZhNKKh, 2, 12, 2700 (1957)] and corresponding to the present results (Fig. 5-8) the present authors assume a correlation between changes in primary and secondary structure of the precipitate in abnormal aging. This correlation controls the effect of secondary chemical reactions on changes in physical properties of the aged precipitate. The basic nickel carbonate precipitate has a hydroxide crystal lattice in which  $\text{OH}^-$ -groups are partly substituted by  $\text{CO}_3^{2-}$ -groups. Chemical aging by hydrolysis effects re-substitution of  $\text{CO}_3^{2-}$  by  $\text{OH}^-$ -groups. Thus the primary structure becomes finer and the secondary structure improves. In chemical aging by neutralization the properties of the precipitate change in the opposite direction, since more  $\text{OH}^-$ -groups are replaced by  $\text{CO}_3^{2-}$ -groups, and thus the primary structure is more and more deformed and physical properties deteriorate. Changes in physical properties depend on changes in crystal structure and occur in the same direction. The rate of changes depends on

Card 5/54

7

S/080/01/034/001/010/020  
A057/A129

Study of Chemical Aging and the Effect of Abnormal Aging of Precipitates on the Example of Basic Nickel Carbonate

technological conditions : temperature, concentration, size of the interface, mixing intensity of the suspension, and time of aging. Summarizing: 1. Influence of chemical aging (caused by secondary chemical reactions) starts with the formation of the solid phase during precipitation affecting chemical composition and physical properties of the precipitate, 2. in the aging of precipitates with changing chemical composition the effect of chemical aging abnormally changes the physical properties, 3. change in physical properties (secondary structure) of basic nickel carbonate depends (in abnormal aging) on the change in the primary structure and occurs in the same direction. The present authors suggest to classify processes of chemical precipitations into two groups: a) Processes which are not complicated by secondary chemical reactions. Precipitates are formed not changing the chemical composition during precipitation. Aging occurs like normal physical aging; b) the precipitation process is complicated by one (or more) secondary chemical reactions. The precipitate changes chemical composition during precipitation and aging. These precipitates have abnormal aging because chemical aging and normal

Card 6/24  
7

S/080/61/034/001/010/020  
A057/A129

Study of Chemical Aging and the Effected Abnormal Aging of Precipitates on the Example of Basic Nickel Carbonate

(physical) aging occur simultanecusly. There are 8 figures, 3 tables and 9 references: 6 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov (All-Union Scientific Research Institute of Chemical Reagents)

SUBMITTED: June 9, 1960

Card 7/24  
7

VASSERMAN, Isaak Mikhaylovich; GRIVA, Z.I., red.; FOMKINA, T.A.,  
tekh. red.

[Production of mineral salts]Proizvodstvo mineral'nykh soli.  
2. izd., perer. i dop. Leningrad, Goskhimizdat, 1962. 438 p.  
(MIRA 15:10)

(Salt industry)

VASSERMAN, I.M.; FOMINA, Ye.A.

Continuous process of chemical precipitation with automatic  
control. Khim. prom. no.8:607-610 Ag '63. (MIRA 16:12)

VASSERMAN, I.M.; YEVDOKIMOVA, M.I.; MARAMZIN, A.I.; MILOSLAVSKIY, A.S.;  
TOLSTOGUZOV, A.D.; FOMINA, Ye.A.

Continuous method of precipitating basic nickel carbonate  
with complex automation of the process. TSvet. met. 37 no.12:  
25-31 D '64 (MIRA 18:2)

VASSERMAN, I.M.; SILANT'YEVA, N.I.

Preparation of dicalcium phosphate of stoichiometric composition.  
Zhur. neorg. khim. 10 no.6:1320-1327 Je '65.

(MIRA 18:6)

VASSERMAN, I.M.

Characteristics of precipitate - solution systems formed in the  
processes of chemical precipitation. Zhur. prikl. khim. 37 no.7:  
1518-1523 J1 '64. (MIRA 18:4)

VASSERMAN, I.M.; FOMINA, Ye.A.

Automatic control according to the pH value of a continuous process  
of chemical precipitation of compounds of variable composition. Zhur.  
prikl. khim. 38 no.7:1507-1513 J1 '65. (MIRA 18:7)

VASSERMAN, I.S.; GALKIN, Yu.L.

Ejector pumping of gasoline from tank cars. Neftianik 5 no.1:17-  
18 Ja '60. (MIRA 13:11)

1. Glavnyy inzhener Usglavneftesnabshya (for Vasserman).
2. Nachal'nik ekspluatatsionno-tekhnicheskogo otdela (for Galkin).  
(Gasoline) (Tank cars)

VASSERMAN, I.S.; GALKIN, Yu.L.

Effectiveness of using submerged ejectors in discharging high-  
vapor pressure gasoline. Neft. khoz. 38 no.4:61-63 Ap '60.

(MIRA 14:8)

(Uzbekistan—Gasoline) (Ejector pumps)

L 5455-65 EXT(1) GW  
ACCESSION NR: AR5013962

UA/0169/65/000/004/0016/0016  
550.830(470.324)

AUTHOR: Vasserman, I.S.; Krivtsov, I.I.

2  
C

TITLE: Geological data obtained from complex geophysical studies in the region of the Pavlovsk anomalies in Voronezh oblast

SOURCE: Ref. zh. Geofizika, Abs. 4D101

CITED SOURCE: Sb. Geol. i polezn. iskopayemyye tsentr.-chernozem. obl. Voronezh, Voronezhsk. un-t, 1964, 321-325

TOPIC TAGS: rock structure, geological survey, mapping, sounding, vertical electric sounding, gravimetric survey, magnetometric survey, electrical survey

ABSTRACT: The region studied is located in the southeastern part of the Voronezh crystalline rock mass. The objective of this project was to study the geological structure of the crystalline foundation with the aim of finding basic and ultra-basic rocks with good potentials for nonferrous and rare-metal prospecting. The results are given of a qualitative interpretation of magnetometric gradients.

Card 1/3

L 56565-65

ACCESSION NR: AR5013962

and electrical surveying (vertical electric sounding method), with mapping on a scale of 1:50,000 and detailed mapping on a 1:10,000 scale, with additional profile surveys, conducted at an accuracy of  $\pm 3-5$  Eotvos with the aid of a gravitational variometer. A geological chart of the foundation rocks, prepared in accordance with geophysical data and drilling results is given. From west to east, along the boundaries of the region, there was observed a zonal petrographic variation of the rock complexes, characterized by different physical fields. The thickness of the sedimentary strata varies from 60 m in the central part of the region to 150 m in its western and eastern parts. The basic and ultrabasic rock masses which were drilled are related to a group of rocks, anomalies in the magnetic field of which are related to the rocks of the field and the field of the sedimentary strata. The anomalies in the magnetic field are related to the anomalies into two groups: the group of rocks and Mamonskaya group. The first group of anomalies is confined to the zone of granitoid and gneiss-rhyolite rock complexes. These rocks are present at depths of 100-150 m. The second group of anomalies is related to the rocks of the Mamonskaya complex in a zone of crystalline schists and form extensive anomalies (up to several kilometers) of considerable intensity. The depth of the basic and ultrabasic rocks is 100-150 m. Drilling has shown that they have good

Card 2/3

L 56565-65

ACCESSION NR: AR5013962

potentials for nonferrous and rare-metal prospecting. The presence of hydrothermal deposits can also be expected in zones of fracture of crystalline schists, which in some locations are characterized by high conductivity.

SUB CODE: ES

EECL: 00

TECH: (4)

FILE: 0

SUB CODE: F

482  
Card 3/3

VASSERMAN, Kh.I.

Adhesive for attaching rubber soles to shoe uppers made from  
artificial rubber with a mechanically bonded base. Lsh. prom.  
no.4:47-48 O-D '65. (MIRA 19:1)

VASSERMAN, Kh.M., and Chem Sci -- (russ) "Study of the  
number of quaternaries  $\alpha, \omega$  -polymethylene-bis-pyrrolidine  
and piperidine salts and their derivative <sup>5-substituted</sup> with pyridazine  
and simple and complex ether groups in the polymethylene chain."  
Miga, 1958, 19 pp (Acad Sci USSR. Inst of Forstry Problems)  
350 copies (KL, 23-58, 102)

## PHASE 1 BOOK EXPLOITATION SOV/0350

[illegible]

Sponsoring Agencies: Akademiya nauk Latvyskoy SSR. Institut khimii Vsesoyuznoye khimicheskoye obshchestvo.

Ed.: S. Bakhmurov; Tech. Ed.: A. Klyavitskiy; Editorial Board: Yu. A. Bakhovskiy, Candidate of Chemistry, S. V. Varga, Candidate of Chemistry (Resp. Ed.), L. P. Zakukayev, Doctor of Chemistry, and M. M. Kalymov.

**PURPOSE:** This book is intended for organic chemists and chemical engineers.

**REMARKS:** The collection contains 33 articles on methods of synthesizing or producing pyridine, quinoline, and their derivatives from natural sources. No personalilities are mentioned. Figures, tables, and references accompany the articles.

### III. STATES BASED ON FRIENDS AND QUOTATIONS

51:4434342 and S. A. Gerasimov (Institute for  
Oxidic Synthesis of the Academy of Sciences Latvian SSR). Vapor Phase Contact Oxidation of p-Toluidine

Yaspe, A. P., V. V. Mikhlin, and A. I. Kozlov.

**Current Sales and Sales of Y-Lurex (Memory) Pyridines.**

Stipunov, P. M., and I. A. Aldanov. [Kachestva organicheskoy ksenilal'noy kisloty i ksenilal'noy kisloty pri raznykh usloviyakh razvedeniya: Ksenilal'noy nauchno-issledovatel'skoy institut.]

Department of Organic Chemistry  
of the Moscow Institute for the P-Chem Industry, Al'tshn's  
Scientific Research Institute for Synthetic Materials  
and Dyes, Ministry of the Chemical Industry USSR; Con-  
densation of Aryl Pyridines with Keto Halides

Wasserman, D. G., and S. A. Gitter. [Manitoba, genetically  
inhibited; natural origin; produced; America; Advanced; Yuk  
Lithology SSR [Sera Medical Institute; Institute of  
Organic Synthesis, ]. The use of saturated nitrogen-  
containing heterocyclic compounds for synthesis of ganglia-  
blocking and curariform substances

Zalukayev, L. P. and E. V. Vana<sup>2</sup> (Institute Khimii  
Akademi nauk Latvyskoy SSR (Chemical Institute of the  
Academy of Sciences Latvian SSR), Synthesis and Re-  
actions of  $\alpha$ -Methylcholinoines  
Card 8/10

VASSERMAN, L.; MOISEYEVA, V.; REZNIKOV, R.

Shop for the repair of knit goods. Prom.koop. no.10:17 0 '57.

(MIRA 10:12)

1.Nachal'nik trikotazhnogo otdela TSentral'noy opytno-tekhnicheskoy  
shveynoy laboratorii Rospromsoвета (for Vasserman). 2.Starshiy  
inzhener TSentral'noy opytno-tekhnicheskoy shveynoy laboratorii  
Rospromsoвета (for Moiseyeva, Reznikov).  
(Knit goods--Repairing)

SAUL L. BASS, A.I.; DONALD B. BASS, A.I.; PAUL L. BASS, A.I.  
BASS, DONALD B. BASS, A.I.

Personnel of silver from exchange rates by means of gold  
exchanges. Ukr. Khim. Zhurn. 1960, 1, 1.

1. Liberty Productions

POROMAREVA, L.K.; VASSEMAN, L.I.

Determination of sulfate in sod um dichromate. Zav. lab. 30  
no.11:1332 '64. (MIRA 18.1)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskii institut.

ANDREYEV, D.Ya.; VASSERMAN, L.K.

Economic efficiency of the optimization of operating conditions  
of atmospheric-vacuum tubestills in the case of complex automa-  
tion. Khim. i tekhn. topl. i masel 8 no.6:36-41 Je '63.  
(MIRA 16:6)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promysh-  
lennosti im. akademika Gubkina.

(Volgograd---Petroleum refineries---Equipment and  
supplies)

(Automation)

VASSERMAN, L.K., inzh.; GUN, R.B., kand. tekhn. nauk

Efficiency of the automation of petroleum refineries. Mekh.  
i avtom. proizv. 18 no.7:34-36 J1 '64. (MIRA 17:9)

2 47389-65

S/0065/65/000/002/000/00

ACCESSION NR: AP5006822

AUTHOR: Vasserman, L. K.; Rakitin, A. M.; Grinchishin, B. I.

TITLE: Automation of the process of compounding with additives of active-ness

SOURCE: Khimiya i tekhnologiya, topliv i masel, no. 2, 1965, 39-40

TOPIC TAGS: automation, oil, petroleum, petroleum industry

ABSTRACT: The Volgograd Branch of the Special Design Office of the Academy of Petroleum Engineering, together with the Volgograd Petroleum Products Plant developed and tested a system for the automatic regulation of the delivery of the additives to the diaphragm mixer used to achieve effective mixing of the oil and the additives. Before going to the diaphragm mixer the oil is heated in an ordinary heat exchanger. During the mixing process, samples of the oil mixture were taken at intervals of one hour and were checked for viscosity at a temperature of 100°C. The results of the tests showed that the system provides for consistent maintenance of

Card 1/3

1. 4'319-43

ACCESSION NP: AP5006622

the established ratios between components. The automation of the compounding process makes it possible to make the process continuous and thus increase the productivity of the system, to decrease the expenditure of the resin, cement, additives, and electric power, to decrease the volume of operating personnel, and to increase labor productivity. Diagrams, tables, figures, tables.

ASSOCIATION: Volgogradskiy filial SKB ANN (Volgograd Branch, SKB ANN);  
Volgogradskiy NPZ (Volgograd NPZ)

SUBMITTED: 00

ENCL: 01

SUB CODE: TP

NO REF SOV: 000

OTHER: 000

Card 2/2

ARTES, N. A.; VASSERMAN, L. M.; VAKHROMEYEV, V. B., master katodnoy  
zashchity

Group installation of electrochemical protection anodes on  
parallel pipelines. Suggested by N. A. Artes, L. M. Vasserman,  
V. B. Vakhomeev. Stroi. truboprov. 8 no.4:28 Ap '63.  
(MIRA 16:4)

1. Starshiy inzh. Zapadno-Sibirskogo neftepromyslovogo  
upravleniya (for Artes). 2. Nachal'nik uchastka tresta No. 8  
(for Vasserman).

(Petroleum pipelines—Cathodic protection)

VASSERMAN, M.

Content and methods in the physician's work of labor hygiene problems in rural areas, Usl.zhiz.i zdorov. 1 no.5:52-56 '59.

(MIRA 13:6)

1. Iz otdela gigiyeny truda Instituta gigiyeny i zdavookhraneniya Rumynskoy Narodnoy Respubliki, filial v Yassakh.

(PUBLIC HEALTH, RURAL)

VASSERMAN, M.A.; GET'YE, V.A.; KONSTANTINOV, S.V.; REYTMAN, I.M., redaktor;  
~~PERSHINA~~ PERSHINA, Ye.G., vedushchiy redaktor; TROPIMOV, A.V., tekhnicheskii  
redaktor

[Catalog: Spare parts for petroleum apparatus] Katalog: Zapasnye  
chasti k neftianomu oborudovaniyu. Moskva, Gos. nauchno-tekhn. izd-vo  
neftianoi i gorno-toplivnoi lit-ry. Pt.1. [Geological and prospecting  
apparatus] Geologo-razvedochnoe oborudovanie. Sec.3. [Engines for  
geological and prospecting drilling] Dvigateli d'ia geologo-razve-  
dochnogo bureniya. No.1. [ND22 oil engine] Neftianoi dvigatel'  
ND22. 1956. 31 p. [LND22 oil engine] Neftianoi dvigatel' LND22.  
1956. 38 p. (MLRA 9:7)

1. Soyuznefteburmashremont, Gosudarstvennyy soyuznyy trest.  
(Gas and oil engines)

VASSERMAN, M.Ye., dotsent

Variation of a tuberculous infection of the brain. Med. zhur.  
Uzb. no.6:75-76 Je'63 (MIRA 17:3)

1. Iz Tashkentskoy gorodskoy klinicheskoy bol'nitsy No.6.

VASSERMAN, Nina Borisovna; KASHCHEYEV, V.M., kand. tekhn. nauk,  
nauchn. red.; GAPEYEVA, T., red.

[Theoretical mechanics; kinematics of a mass point.  
Written lectures] Teoreticheskaya mekhanika; kinematika  
tochki. Pis'mennye lektsii. Leningrad, Severo-Zapadnyi za-  
ochnyi politekhn. in-t, 1965. 51 p. (MIRA 19:1)

VASSERMAN, N.N., aspirant; GLADKOVSKIY, V.A., kand. tekhn. nauk, dotsent

Regularities in the hardening and damage accumulation in the  
process of cyclic loading of low-carbon steel. Izv. vys. ucheb.  
zav.; mashinostr. no.2:68-77 '65. (MIRA 18:5)

1. Permskiy politekhnicheskii institut.

VASSERMAN, O.S.; RUMYANTSEV, V.A.; FIGLIN, I.Z.

Increasing the performance of trench chain excavators. Stroi. i dor.  
mashinostr. no.4:4-5 Ap '58. (MIRA 11:4)  
(Excavating machinery)

S/123/59/000/010/045/068  
A004/A001.

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No. 10, p. 129.  
# 38180

AUTHORS: Chabotarskiy, V. V., Vasserman, P. I. 15

TITLE: The Mechanism of the Protective Effect of Varnish and Paint Coatings  
During Humidification

PERIODICAL: V sb.: Vses. nauchno-tekhn. soveshchaniye po korrozii n zashchite  
metallov, No. 5, Moscow, Profizdat, 1958, pp. 13-14

TEXT: The failure of the protective effect of varnish and paint coatings when they are being exposed to humid air and sea water, is connected with a number of physical and chemical processes taking place: the diffusion of moisture and electrolyte into the film, osmosis, electroosmosis, electrochemical corrosion process. When moisture is penetrating into the film, and also under the effect of corrosion products, blisters are originating, on the coating the film is swelling, cracking and peeling off the metal surface, and the high-polymer film-producing part is destroyed on account of saponification. A considerable increase

Card 1/2

S/123/59/000/010/045/062  
A004/A001

The Mechanism of the Protective Effect of Varnish and Paint Coatings During Humidification

in the protective effect of varnish and paint coatings can be attained by increasing the structural density of the film, decreasing the hydrophilic nature of the film-producing substance, lowering the content of water-soluble substances in and under the coating, increasing the adhesion of the varnish and paint coating to the metal, increasing the ohmic resistance of the coating, by the presence of alkali-resisting film-producing substances in the film, and also by imparting the coating a passivating ability. This can be attained by introducing into the coating pigments and corrosion inhibitors or employing primers containing chromate pigments. As to the mechanism of the protective effects, varnish and paint coatings can produce different effects: insulating (i. e. causing a mechanical insulation of the metal surface from the surrounding medium), passivating or combined effect. The latter have been widely used and showed good results under operation conditions. ✓

K. I. M.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

5(4)

007/69-21-1-1/22

AUTHOR: Vasserman, P.I., Kolotyrkin, Ya.M., Chebotarevskiy, V.V.,  
Teoktistova, K.A. (Moscow)

TITLE: The Properties of Paint and Lacquer Coatings as Character-  
ized by Their Electrical Resistance and Capacitance

PERIODICAL: Kolloidnyy zhurnal, Vol XXI, 1959, Nr 4, pp 392-397, (USSR)

ABSTRACT: The authors report on experiments intended to characterize  
the structure and moisture-proof properties of certain metal  
coatings by their electrical resistance and capacitance. The  
measuring of the electrical resistance was carried out with an  
alternating-current bridge, the scheme of which is illustra-  
ted in figure 1 (diagram). The coating materials (perchloro-  
vinyl, nitrocellulose, butylmetacrylate, ethylcellulose) were  
in the form of thin films (30 - 35  $\mu$ ) on metal, and in a free  
state. The way they were used during the experiments is  
likewise illustrated in figure 1. Figure 2 (graph) shows  
measuring results concerning the resistance of a nitrocellu-  
lose film and the capacitance of the system: platinum electrode-

Card 1/5

SOV/69-21-4-4/22

The Properties of Paint and Lacquer Coatings as Characterized by Their Electrical Resistance and Capacitance.

solution-film-solution-platinum electrode. The results were obtained at a frequency of 1 kilocycle after various time intervals. Previously the film had been immersed into an NaCl solution. The results show that after initially high values, the electric resistance of the film weakens due to a growing liquid absorption, whereas the capacitance of the system is on the increase. Experiments with the above-mentioned materials were carried out to ascertain the dependence of resistance and capacitance on the nature of the film-forming substance. The results are listed in a special table. Figure 3 (graph) shows the effect of alternating current frequency on the electrical resistance of coating films. In most cases the resistance weakens in inverse proportion to the increase of frequency. Film structure, however, exercises a considerable effect on this dependence. The resistance of less compact films weakens to a lower degree than the resis-

Card 2/5

DDV/69-21-4-4/22

The Properties of Paint and Lacquer Coatings as Characterized by Their Electrical Resistance and Capacitance.

tance of compact films. Figure 4 (graph) shows that the effect of frequency on electric resistance grows weaker in proportion to the growth of liquid absorption by the film. Figures 5 and 6 show the effect of electrolytes on the electrical resistance of a film and the capacitance of the system (ethylcellulose film in both cases). The resistance and capacitance values are lower in distilled water than in an NaCl solution. Discussing the results of their investigation the authors conclude that the establishment of a direct correlation between electrolyte concentration and film structure on the one hand and electric conductivity of the film on the other hand is not admissible. A comparison of the data obtained in NaCl solution and in distilled water shows that such a direct correlation does not exist even at the time of the immersion of the film into the liquid. The authors assume that the so-called surface conductivity plays an important role in the conductivity of the films. In this case

Card 3/5

307/62-21-1-4/22

The Properties of Paint and Lacquer Coatings as Characterized by Their Electrical Resistance and Capacitance

the total conductivity of the film immediately after immersion can be determined by two components:  $K_{\Sigma} = K_1 + K_2$ .  $K_1$  is the electric conductivity of the electrolyte in the pores, and  $K_2$  the pore surface conductivity. According to the investigations of I.I. Zhukov and other scientists, the specific weight of surface conductivity in the total conductivity of the film considerably increases at a reduction in pore dimension and a lowering of electrolyte concentration. In dependence on the swelling of the film in the electrolyte, a third component appears, which is due to the conductivity of the film body. In case the equation will have the form  $K_{\Sigma} = K_1 + K_2 + K_T$ .  $K_T$  is the conductivity of the film body. The results of the investigation can be summarized as follows: a relation between the electric resistance, the vapor permeability and the lyophilic properties of metal coatings has been established. Films with low vapor permeability which swell badly in water

Card 4/5

SOV/69-21-4-1/22

The Properties of Paint and Lacquer Coatings as Characterized by Their Electrical Resistance and Capacitance.

are characterized by high electric resistance. The electric conductivity of a coating film is of three components: conductivity of the electrolyte in the pores, surface conductivity in the pores and conductivity of the film body. The conductivity of a film depends on the alternating-current frequency, which, evidently, is due to a change in the surface conductivity in the film pores. There are 5 graphs, 1 diagram, 1 table and 10 references, 4 of which are English, 3 Soviet and 3 German.

SUBMITTED: 7 February, 1958.

Card 5/5

Z/011/61/018/001/013/014  
E112/E453

AUTHORS: Vasserman, P.I. and Chebotarevskiy, V.V.  
TITLE: Protective action of primers on magnesium alloy surfaces  
PERIODICAL: *Chemie a chemicka technologie*, 1961, Vol.18, No.1, p.33, abstract Ch 61-452 (Lakokras. Materialy, 1960, No.1, pp.50-57)  
TEXT: Primers on the basis of alkyd resins, polyvinylbutyral and butylmethacrylate were investigated, using as pigments: zinc oxide, titanium dioxide, aluminium bronze and zinc yellow. The coatings were tested for absorbency, permeability, adhesion and resistance to alkalies. Changes of electrochemical properties of the magnesium alloy under the primer were studied. It was established that for an efficient primer a binder is required which has low absorbency and high adhesion, does not contain components which are water-soluble, and is alkali- and corrosion-resistant. For the pigmentation, the use of 25% zinc chromate is recommended. It is further suggested to subject the surface of the alloy to oxidation prior to applying the primer.

Card 1/2

Protective action of primers ...

Z/011/61/018/001/013/014  
E112/E453

13 diagrams, 1 table, 6 literature references.

[Abstractor's note: Complete translation.]

Card 2/2

S/196/61/000/010/008/037  
E194/E155

AUTHORS: Vasserman, P.I., and Chebotarevskiy, V.V.  
TITLE: Determination of the insulating properties of varnish  
films from their ohmic resistance

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika,  
no.10, 1961, 21, abstract IOB 95. ("Lakokrasochn.  
materialy i ikh primeneniye" no.2, 1961, 35-44)

TEXT: A study was made of the relationship between the  
corrosion-resisting properties of varnish films and a number of  
properties of the film material, including the electrical  
conductivity extended to the influence of the electrical  
films are wetted in distilled water, and in particular to the  
influence of the film-forming substance, the influence of film  
thickness, the method of film deposition and the amount of pigment.  
The varnish film was considered as a sub-microscopic capillary  
system; the structural density of such films depends upon the  
chemical nature of the film forming substance and also on the  
content of pigment and fineness of its particles. It was found  
Card 1/2

Determination of the insulating ...

S/196/61/000/010/008/037  
E194/E155

that varnish films of low electrical resistance and high penetrability to moisture vapour are insufficiently protective (corrosion-resistant). A comparatively simple electro-chemical method of determining the insulating properties of varnish films is described; it is based on measuring the resistance of free film when wetted. There is also a diagram, and directions for determining the resistance from the voltage drop in a circuit containing two resistances in series (one resistance box of 100 megohms to 1 kilohm, the other the test film between platinum electrodes). By applying 1 V from a dry battery through a potentiometer, a resistance of up to  $10^{11}$  ohms can be measured with sufficient accuracy.  
16 literature references.

[Abstractor's note: Complete translation.]

Card 2/2

L 00181-00 LIT(m)/EUP(j)/i/EP(t)/ii IJ(c) #/ / / / /

ACC NR: AP6019447 (A) SOURCE CODE: UR/0303/66/000/003/0013/0018 <sup>43</sup>/<sub>12</sub>

AUTHOR: Shtern, M. A.; Danyushevskaya, N. Ye.; Vasserman, P. I.; Chebotarevskiy, V. V.

ORG: none

TITLE: Application of <sup>27</sup>calcium <sup>27</sup>chromate as an <sup>16</sup>anticorrosion <sup>14</sup>heat-resistant <sup>15</sup>pigment

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 3, 1966, 13-18

TOPIC TAGS: calcium chromate, chromic anhydride, chromate, pigment, anticorrosive agent, heat resistance, *CALCIUM COMPOUND, CHROMATE*

ABSTRACT: A method has been developed for preparing calcium chromate by reaction of hydrated calcium oxide with chromic anhydride. It has been shown that calcium chromate is a pigment which imparts a higher passivating capacity as well as a higher heat resistance to magnesium alloys and steel. It has been established that the use of calcium chromate in soils improves their conservation properties. Orig. art. has: 5 figures and 5 tables. [AM]

SUB CODE: <sup>11</sup>011/ SUBM DATE: none ORIG REF: 001/ OTH REF: 00

Card 1/1 <sup>11</sup>011

UDC: 667.622.117.6

VASSERMAN, R.A., plesar'.

~~Small electric mixer for preparing gypsum saw-dust mastics used in~~  
~~fixing plasterboard. Rats. i izobr. predl. v stroj. no.7:42-43 '58.~~  
~~(MIRA 11:12)~~

1. Stroitel'nyy uchastok - 86 tresta Mosotdelstroy No.4.  
(Mixing machinery)

I 147501-55 FMT(m)/EFA(w)-2/ENA(m)-2 Pub-10 IJP(c) GS

ACCESSION NR: AT5007321

S/0000/64/000/000/0274/0287 26  
64  
B41

AUTHOR: Bayyer, V. N.; Blinov, G. A.; Bondarenko, L. N.; Yerozolimskiy, B. G.;  
Korobeynikov, L. S.; Mironov, Ye. S.; Naumov, A. A.; Onuchin, A. P.; Panasyuk,  
V. S.; Popov, S. G.; Sidorov, V. A.; Sil'vestrov, G. I.; Skrinakiy, A. N.;  
Khabakhpashev, A. G.; Auslender, V. L.; Kiseley, A. V.; Kushnirenko, Ye. A.;  
Livshits, A. A.; Rodionov, S. N.; Synakh, V. S.; Yudin, L. I.; Abramyan, Ye. A.;  
Vasserman, S. B.; Vechevlov, V. V.; Dimov, G. I.; Papadichev, V. A.; Protopopov,  
I. Ya.; Budker, G. I.

TITLE: Colliding electron-electron, positron-electron, and proton-proton beams

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963.  
Trudy. Moscow, Atomizdat, 1964, 274-287

TOPIC TAGS: high energy interaction, high energy plasma, particle physics, par-  
ticle beam, charged particle beam

ABSTRACT: In the Institute of Nuclear Physics, Siberian Department, Academy of  
Sciences SSSR, programs on high-energy particle physics are mainly concerned with  
work on colliding charged particle beams. The Institute considers it unsuitable

Card 1/5

17308-45

ACCESSION NR: AT5007921

for its purpose to install huge accelerators whose construction requires large resources outlaid and long time. For work on colliding electron-electron, positron-electron, and proton-proton beams, three installations are being built, which are in various stages of readiness. Work on colliding electron beams was conducted at the institute (then a laboratory of the Institute of Atomic Energy named I. V. Kurchatov) in the Fall of 1956, after Kerst's report on accelerators with colliding proton beams of the FFAG type. By that time Soviet scientists had already acquired some experience in obtaining large electron currents; in particular, the mentioned laboratory had installed and then abandoned a device for the spiral storage of electrons (G. I. Budker and A. A. Naumov, CERN Symposium, 1, 76 (1956)), by which, subsequently, circulating currents of the order of 100 amperes were obtained. In 1957 two variants of this device were considered at the same time. The first one consisted of two accelerators with spiral storage and subsequent transition of the particles to synchrotron state in comparatively narrow paths. The second one had storage rings with constant magnetic field and frequent external injection because of the damping of the oscillations under the action of radiation. The first variant was more cumbersome; the second variant contained an element not developed at that time, namely a 100-kilovolt commutator of 10 kilo-amperes with nanosecond front. At the end of 1957, the first positive results were obtained

Card 2/5

L 47304-65

ACCESSION NR: AT5007921

with a packing discharger of 100 kilovolts, and work stopped on the variant with storage rings. Originally it was proposed to set up two devices: VEP-1 of  $2 \times 130$  Mev energy, and VEP-2 of  $2 \times 500$  Mev energy. The VEP-1 was considered as an actual model of an accelerator and as a device for conducting initial experiments at low energies. After the Panofsky report in 1958 on his work with colliding electron beams conducted in his laboratory at Stanford, construction ceased on 500-Mev storage paths and work was continued on the  $2 \times 130$ -Mev installation. Instead of work on colliding electron beams with energies of 500 Mev, work at the end of 1958 was conducted with colliding positron-electron beams and the planning of the VEPP-2 device was begun, whose main elements are a strong-current electron accelerator and a high-vacuum storage path of 700 Mev energy. At the present time the VEP-1 and VEPP-2 are installed in Novosibirsk. The VEP-1 is in a state of neglect, but at the end of 1964 experiments will be begun with it. Installation of the VEPP-2 has been completed. To obtain a marked effect from the application of colliding proton beams, an accelerator is needed with an energy of at least 10 Gev. Since the ordinary accelerator at such energies is a very bulky machine, it was decided to combine the idea of colliding proton beams with the creation of an iron-less impulse accelerator with very large fields and a neutralized central busbar. This latter work of creating such a machine was reported by the authors at a Moscow conference

Card 3/5

L 47301-65  
ACCESSION NR: AT5007921

0

held in 1956. The presence of a field with two directions in an iron-less accelerator with central busbar permits the acceleration of protons toward opposite sides in one machine, which makes possible the collision of protons in case of a suitable race-track. At the present time the Institute is developing a proton device with a magnetic field of about 200 kilogauss and radius of 2 meters for a particle energy of 12 Gev in the beam (equivalent energy is around 300Gev). Tests are being conducted on models, and an effective method of injection by overcharging of negative ions is under study. Also under development are an impulse electric power supply system of 100 million joules capacity and an hf power supply. Since 1958 the Institute has been conducting theoretical investigations on the limits of applicability of quantum electrodynamics [V. N. Bayyer, ZhETF, 37, 1490 (1959), and UFN, 78, 619 (1962)] for the calculation of the radiational corrections to the electrodynamic cross-sections [V. N. Bayyer and S. A. Kheyfets, ZhETF 40, 613-715 (1961) and Nuclear Physics (in print)], and on other problems of high-energy particle physics that are connected with the preparation of experiments on colliding beams [V. N. Bayyer, I. B. Khriplovich, V. V. Sokolov, and V. S. Synakh, in ZhTF, 1961]. The present report takes up under the mentioned three main headings the following pertinent topics: the accelerator-injection, storage paths, electron-optical channel,

Cord 4/5

L 47304-65

ACCESSION NR: AT5007921

Input and output system, experiments on storage, proposed work, experimental set-up, physical layout of magnets, power supply, etc. Orig. art. has: 8 figures.

ASSOCIATION: Institut yadernoy fiziki SO AN SSSR (Institute of Nuclear Physics, SO AN SSSR)

SUBMITTED: 26May64

ENCL: 00

SUB CODE: EE, NP

NO REF SOV: 012

OTHER: 003

*MR*  
Card 5/5

VASSERMAN, S.N.

New principle of the design of block-wide telephone networks.  
Vest.sviazi 25 no.2:3-5 F '65. (MIRA 18:6)

RUBANOV, I.S.; MELITSKAYA, N.D.; VASSERMAN, I.V.

Intermolecular reactions and anisotropy in binary solutions.  
Izv. SO AN SSSR no.3 Ser. khim. nauk no.1: 615-625.

(MIRA 18:4)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo  
otdeleniya AN SSSR i Novosibirskiy gosudarstvennyy  
universitet.

BLOKH, S.S.; VASSERMAN, V.O.

Using electronic computers for processing well data by the  
built-up pressure method. Nefteprom, delo no. 10:40-41 '65.  
(MIRA 19:1)

1. Ukhtinskiy nefte-gazovyy otdel Vsesoyuznogo nauchno-  
issledovatel'skogo instituta prirodnogo gaza i Ukhtinskiy  
nefte-gazovyy kombinat.

ca 7

Processes and Properties Index

New indicators. E. S. Vasyurman. Zvezdskaya Lab. 3, 858-9(1934).—The dyes obtained by coupling 2,4-(O<sub>2</sub>N)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>Cl (II) with 1-naphthol-8-chloro- (bromo-, iodo-) 3,5-disulfonic acids show color reactions similar to that of nitrazine yellow (Wenker, C. A. 28, 2263). I coupled with 1,3,8-HOC<sub>10</sub>H<sub>6</sub>(SO<sub>3</sub>H)<sub>2</sub> shows a yellow color in solns. of  $pH = 7.6$  and lower and a blue color at  $pH = 8.4$  and higher. I with 1,5-HOC<sub>10</sub>H<sub>6</sub>(SO<sub>3</sub>H)<sub>2</sub> is yellow at  $pH = 7.4$  and lower and green at  $pH = 8.6$  and higher. I with H acid is rose-violet at  $pH = 4.8$  and lower and blue at  $pH = 5.6$  and higher. Chas. Blanc

ASAC 514 METALLURGICAL LITERATURE CLASSIFICATION

1277

9

Application of Diphenylcarbazone to the Determination of Metals. E. N. Yagorin and I. Suprunovich (*Ukrainski Khimicheskii Zhurnal* (*J. Chem. USSR*), 1934, 8, 330-340; *Brit. Chem. Ab.*, 1935, [A], 1350). [In Ukrainian.] Many cations are quantitatively precipitated as complexes insoluble in H<sub>2</sub>O, but soluble in organic solvents; the application of such solutions to the colorimetric determination of the metals gives trustworthy results. Pb, Hg, and Zn may be determined gravimetrically as complexes. S. G.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION 1		SECTION 2		SECTION 3		SECTION 4		SECTION 5		SECTION 6		SECTION 7		SECTION 8		SECTION 9		SECTION 10	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

1st and 2nd codes

PROCESSES AND PROPERTIES CODE

COMMON ELEMENTS

CP

Synthesis of alkyl-substituted substances of the quinoline series. E. S. Vaserman. *Trudy Dnepropetrovsk. Khim.-Tekhnol. Inst. im. P. E. Dzerzhinskogo, Kafedra Org. Khim.* 1938, 68-72; *Khim. Refrat. Zhur.* 2, No. 4, 6 (1939).—The object of the expts. was the application of Komb's method for the prepn. of 2,4-dimethylquinolines to different aromatic amines and to their derivs. When used with aniline the scheme of the reaction is as follows:  

$$\text{PhNH}_2 + \text{MeCOCH}_2\text{COMe} \xrightarrow{+\text{H}_2\text{SO}_4} \text{PhN:CMcCH}_2\text{COMe} \xrightarrow{\text{C}_6\text{H}_5\text{N:CMcCH}_2\text{COMe}} \text{From } p\text{-toluidine}$$
  
 and  $\text{CH}_3\text{Ac}$  was obtained 2,4,6-trimethylquinoline, m. 43-5°. From  $\alpha$ - and  $\beta$ -naphthylamines and  $\text{CH}_3\text{Ac}$  were obtained 2,4-dimethyl- $\alpha$ -, m. 44°, and  $\beta$ -naphthoquinoline, m. 66-7°. Aniline with  $\text{EtCH}_2\text{Ac}$  gives similarly 2-methyl-4-phenylquinoline, m. 100°.  $p$ -Toluidine with  $\text{EtCH}_2\text{Ac}$  gives 2,6-dimethyl-4-phenylquinoline, m. 78°. The Komb reaction does not take place when aromatic amines with halogen and with nitro groups in the  $\alpha$ - and the  $\beta$ -positions are used. W. R. Henn

ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION

SECONDARY CODE

THIRD CODE

FOURTH CODE

FIFTH CODE

SIXTH CODE

SEVENTH CODE

EIGHTH CODE

NINTH CODE

TENTH CODE

ELEVENTH CODE

TWELFTH CODE

THIRTEENTH CODE

FOURTEENTH CODE

FIFTEENTH CODE

SIXTEENTH CODE

SEVENTEENTH CODE

EIGHTEENTH CODE

NINETEENTH CODE

TWENTIETH CODE

COMMON ELEMENTS

a

3

**Chemiluminescence of hydrazides of carboxylic acids.**  
E. S. Vasserman and G. P. Miklukhin. *J. Gen. Chem.*  
U.S.S.R. 19, 609 (1949).--The chemiluminescence  
of hydrazides of type  $RCONHNH_2$  (I),  $R(CONHNH_2)_2$   
(II),  $RCONHNHCOR$  (III) and  $RCONHNHCO$  (IV)

is studied by the methods of Albrecht (*C. A.* 23, 4898)  
and of Giau (*C. A.* 30, 8209). For open chain hydrazides  
of type I and II only those with an  $NH_2$  group in the  
nucleus exhibit luminescence. Sym. hydrazides of type  
III, with the exception of those contg. a substituted

nucleus, are also nonluminescent. The greatest degree  
of luminescence is shown by the cyclic hydrazides IV,  
especially those contg. an aromatic nucleus. The mech-  
anism of chemiluminescence is discussed. For 3-  
aminophthalyl hydrazide (luminol) (V) it is postulated  
that in alk. soln. Venolizes, the enol form, in the presence  
of the activating groups  $NH_2$  and  $OH$ , then combining  
with the O dissolved in soln. to form a peroxide, which  
undergoes decompn. with emission of visible light. The  
cyclic hydrazides, prepd. by condensation of a dicarboxylic  
acid (VI) with  $NH_2.HCl$  in the presence of  $AcONa$  or by  
reaction of the di- $Et$  ester of VI with  $NH_2.H_2O$ , include:  
1-nitrophthalyl hydrazide, m. > 320°; 4-sulphophthalyl  
hydrazide, obtained as the  $NH_2$  salt, darkens at 240°;  
m. > 310°; 3-nitrophthalyl phenylhydrazide, not purified,  
diphenyl-2,2'-dicarbonyl hydrazide, m. > 310°; phenyl-  
glyoxyl-2-carbonyl hydrazide, m. > 320°; 1-amino-2,5-  
diphenylpyrrole-1,4-dicarbonyl hydrazide, insol. in the  
common solvents, m. > 320°. Aurintricarboxylic acid  
with  $NH_2.HCl$  and  $AcONa$  forms a compd. which, be-  
cause of its luminescent properties, is assumed to be the  
cyclic hydrazyl hydrazide  $C_{12}H_8N_4O_6$ . 55 references.

John Livak

ASH-35A METALLURGICAL LITERATURE CLASSIFICATION

VASSERMAN


ck

3

Chemiluminescence of hydrazides of carboxylic acids  
H. E. S. Vasserman and G. P. Miklukhin. *J. Gen. Chem. (U. S. S. R.)* 10, 202-6(1940); cf. C. A. 33, 7060. —By previous procedures these cyclic hydrazides of naphthalic, diphenic and dihydrophthalic acids were prepd. and their chemiluminescences are compared: Naphthalhydrazide, m. 255-6°, and N-aminonaphthalimide, m. 262-3° (cf. Bistrzynski and Rasi, C. A. 20, 1075); 4-nitrophthalhydrazide, m. 336° (decompn.); biphenyl-2,2'-dicarboxhydrazide, m. 216° (decompn.); biphenyl-2,2'-dicarboxhydrazide, m. 140°; 1,2-dihydrophthalhydrazide, yellow powder, darkens at 270°, m. 375°; 1,4-dihydrophthalhydrazide, m. 251 (decompn.). The last 2 hydrazides showed the greatest degree of luminescence. Chas. Blanc

Dnepropetrovsk Chemical-Techn. Inst.

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
BC										A-3									
																			
ASB-SCA METALLURGICAL LITERATURE CLASSIFICATION																			
SOURCE COUNTRY										SOURCE COUNTRY									

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Organic Chemistry

The synthesis of aromatic aldehydes, E. S. Vaserman, R. S. Chertkov, and G. S. Sterina (Chem. Technol. Inst., Dnepropetrovsk, Ukraine). *Zhur. Priklad. Khim.* 23, 869-76 (1950); *Chem. Zentr.* 1951, 1, 1588. —The method of Sommelet (cf. *C.A.* 3, 660) for the synthesis of aromatic aldehydes by the conversion of the  $-CH_2Cl$  group into the  $-CHO$  group without the use of strong oxidizing agents was applied to a series of  $ClCH_2$  derivs. The urotropine (I) reaction (action of I on the appropriate  $ClCH_2$  deriv. in alc. and hydrolysis of the product) proceeded readily and gave good aldehyde yields (60-8%). The aldehydes were identified as the *p*-nitrophenylhydrazones (II).  $PhCH_2Cl$  and I in alc. refluxed 1 hr., water was added, heating continued another hr., the mixt. cooled, and the upper layer contg. the  $BzH$  extd. with ether, dried, and distd. from an oil bath gave 60%  $BzH$ , b. 179°; II, obtained by refluxing 30 min. with  $p-O_2NC_6H_4NHNH_2$  in glacial HOAc, filtering, and recrystg. from glacial HOAc, red crystals, m. 192°. The following  $RCHO$  were similarly prepd. from the analogous  $RCH_2Cl$  [R, b.p. or m.p. yield (%) and, in parentheses, m.p. of II]:  $MeC_6H_4$ , b. 205°, 85 (202°); 2,5- $Me_2C_6H_3$ , b. 220°, 59 (186°); *p*- $Me_2CHC_6H_3$ , b. 234-5°, 85 (193°); *p*- $O_2NC_6H_4$ , m. 103-5°, 68 (240-60°); 1- $C_{10}H_7$ , light brown, thick liquid of characteristic odor, b. 155°, 66 (236°). The course of the reaction is assumed to be as follows: The  $Cl$  deriv. treated with I in ether forms a salt of the quaternary ammonium base; upon hydrolysis of this salt the  $RCH_2$  radical is split off as  $RCH_2NH_2$ , and I decomp. into  $NH_3$  and  $HCHO$ ; the  $RCH_2NH_2$  undergoes further reaction and dehydrogenation according to the Cannizzaro-Tishchenko reaction with the formation of  $RCH:NH$ , which is readily hydrolyzed to  $RCHO$ :  $RCH_2Cl + (CH_3)_3N \rightarrow (CH_3)_3N^+ \cdot RCH_2Cl \xrightarrow{H_2O} RCH_2NH_2 + 3 NH_3 + 6 HCHO$ ;  $RCH_2NH_2 + HCHO + H_2O \rightarrow RCH:NH + MeOH \xrightarrow{H_2O} RCHO + NH_4OH$ . M. G. Moore

10

CA

Synthesis of aromatic aldehydes. K. S. Vasserman, R. K. Chertok, and K. Z. Sierina (Dokl. Akad. Nauk SSSR, 1930 (Engl. translation), *J. Applied Chem. U.S.S.R.* 23, 810-25, 1930).  $\text{PhCH}_2\text{Cl}$  (12.6 g.) and 14 g. benzamine refluxed 1 hr. in 20 ml. alc., then 1 hr. with 40 ml.  $\text{H}_2\text{O}$ , gave 60% yield, b.  $170^\circ$ ; *p*-nitrophenylhydrazones, m.  $192^\circ$ . The following aldehydes (I) were prepd. similarly (yield (%), b.p., and m.p. of *p*-nitrophenylhydrazones given, resp.): toluene, 65,  $206^\circ$ ,  $212^\circ$ ; 2,5-Me<sub>2</sub>C<sub>6</sub>H<sub>3</sub>CHO, 39,  $220^\circ$ ,  $188^\circ$ ; cumaldehyde, 65,  $294-5^\circ$ ,  $193^\circ$ ; *p*-ClC<sub>6</sub>H<sub>4</sub>CHO, 68, m.  $103-5^\circ$ ,  $249-50^\circ$ ; and *i*-C<sub>6</sub>H<sub>4</sub>CHO, 61,  $155^\circ/13$  mm.,  $236^\circ$ . Chloromethyl derivs. were prepd. by standard methods. A mechanism is proposed which involves formation of a quaternary salt, hydrolysis to the aromatic amine (II),  $\text{NH}_2$ , and  $\text{CH}_2\text{O}$ , oxidation of II to an imine and hydrolysis of the imine to I. Jane C. Aycock

VASSERMAN, E. S.

Preparation of chemical substances for rodent control.  
M. Ya. Shlyakman and E. S. Vasserman. J. Appl. Chem. 1954, 27, 411-14 (1954) (Engl. translation).—See C.A. 49: 7530a. H. L. H. ①

VAS. BRUMIN, Ye. S.

AID - P-97

Subject : USSR/Chemistry

Card : 1/1

Authors : Shlyakman, M. Ya., and Vasserman, Ye. S.

Title : Production of chemical compounds for control of rodents

Periodical : Zhur. Prikl. Khim. 27, no. 4, 445-449, 1954

Abstract : A simplified method for production of  $\alpha$ -naphthylthiourea is given. Crude naphthalene is used as starting material for  $\alpha$ -naphthylthiourea, and aniline hydrochloride for phenylthiourea. Three references (Russian): 1946-1948.

Institution : Department of Chemistry of the Dnepropetrovsk Agricultural Institute

Submitted : November 23, 1953

VLASS'YAN, Ye. Ye., Cand Tech Sci -- (disc) "System of <sup>setting</sup> ~~arranging~~  
<sup>dimensions</sup> ~~of~~ of volume-planned and <sup>design</sup> ~~constructive~~ elements of residen-  
 tial <sup>buildings upon</sup> ~~structures~~ on the basis of a <sup>unified</sup> ~~single~~ plan." Nov, 1959.  
 19 pp (Academy of <sup>Construction</sup> ~~Building~~ and Architecture USSR. Scientific Re-  
 search Inst of <sup>Novaya</sup> ~~Living quarters~~), 150 copies (KL, 29-59, 128)

- 32 -

ROZOV, Serafim Vasil'yovich, dotsent, kand.tekhn.nauk; VASSERMAN, Yn.Yn.,  
inzh., retsenzent; KISLOV, I.A., inzh., retsenzent; LOPATA,  
A.Ya., kand.tekhn.nauk, red.; SERDYUK, V.K., red.

[Teaching mechanical drawing in technical schools; a brief  
manual for teachers] Prepodavanie chercheniia v tekhnikumakh;  
kratkoe rukovodstvo dlia prepodavatelei. Moskva, Gos.nauchno-  
tekhn.izd-vo mashinostroit.lit-ry, 1959. 245 p. (MIRA 13:1)  
(Mechanical drawing--Study and teaching)

VASSERMAN, Ya.Ye., inzh.

Further development of the unified modular system in construction.  
Zhil. dom no.1:68-82 '60. (MIRA 14:1  
(Modular coordination (Architecture))

AUTHOR: Vasserman, Yu.M., Engineer SCV-91-58-4-21/29

TITLE: Cases of Traumatism during the Fanning out of Cable Joints  
(Sluchai travmatizma pri razdelke kabel'nykh muft)

PERIODICAL: Energetik, 1958, Nr 4, pp 26-27 (USSR)

ABSTRACT: This note describes two burn accidents occurring during the fanning out of cable joints. The first accident was caused by an electric spark produced by an accidental contact of two cable lead sheaths in the zone of stray currents. The lead sheaths, having been polished by an abrasive material soaked in benzine, were immediately ignited by the spark. The second accident was caused by the explosion of benzine vapors flowing out an extinguished soldering lamp filled with either pure benzine or a mixture of benzine and kerosene. This explosion occurred at the moment when the cable workers tried to ignite the soldering lamp again with a match. The author comes to the conclusion that lead sheaths should be connected by means of a jumper during the fanning out of cable joints in the zone of stray currents and that safety regulations should contain a prohibition of igniting

Card 1/2

SOV-91-58-4-21/29

Cases of Traumatism during the Fanning out of Cable Joints

soldering lamps inside working tents.

1. Electrical equipment--Safety measures    2. Burns--Preventive  
measures    3. Benzine--Hazards    4. Accidents

Card 2/2

VASSERMAN, Z.

For a new upsurge of invention and efficiency in construction.  
Sel'stoyi. 15 no.1:22-23 Ja '60. (MIRA 15:7)

1. Nachal'nik Tekhnicheskogo upravleniya Glavnogo upravleniya  
stroitel'stva Ministerstva sel'skogo khozyaystva RSFSR.  
(Farm mechanization)

VASSERMAN, Z.

New types of efficient greenhouses. Sel'.stroï. 13 no.2:22-24 P '59.  
(MIRA 12:3)

1. Nachal'nik Tekhnicheskogo upravleniya Glavnogo upravleniya kapital'-  
nogo stroitel'stva sel'skogo khozyaystva RSFSR.  
(Greenhouses)

VASSERMAN, Z., inzh.

New-type shelters for sows. Sel'. stroi. 14 no.7:16-17 J1 '59.  
(MIRA 12:10)

(Siberia--Swine houses and equipment)

VASSERMAN, Z.

Multistoried housing construction on the collective farms. Sel'.  
stroil. 15 no. 3:4-5 Mr '61. (MIRA 14:5)

1. Nachal'nik Tekhnicheskogo upravleniya Glavnogo upravleniya  
stroitel'stva Ministerstva sel'skogo khozyaystva RSFSR.  
(Apartment houses) (Construction industry)  
(Housing, Rural)

VASSERMAN, Z.

Increase the tempo of construction on state farms. Sel'.stroi. 18  
no.11:2-3 N '63. (MIRA 17:3)

1. Glavnyy inzh. upravleniya kapital'nogo stroitel'stva Ministerstva  
proizvodstva i zagotovok sel'skokhozyaystvennykh produktov RSFSR.

VASSERMAN, Z.M.; TEMIROVA, B.T.

Blood protein fractions in immunological and drug therapy. Sbor.  
trud. Uz nauch.-issl. tub. inst. 3:24-31 '57. (MIRA 14:5)  
(TUBERCULOSIS) (BLOOD PROTEINS)



VASSERMAN, Zus' Natanovich; SMOLYAKOV, Rimma Timofeyevich; SOKOLOVA,  
G.S., red.; BALAKIN, V.M., red.; LEVINA, L.G., tekhn.red.

[Economical and simple livestock buildings] Prosteishie i  
ekonomichnye zhivotnovodcheskie postroiiki. Moskva, Izd-vo  
M-va sel'. khoz.RSFSR, 1961. 86 p.

(Farm buildings)

(MIRA 14:7)

BURLACHENKO, M.A., kand. med. nauk; SIGAL, L.D.; KAUSHANSKIY, M.Z.;  
PEL'TIN, K.K.; KRAVETS, I.G.; ZDAKOVICH, O.A.; ERMAN, I.D. (Kishinev);  
MIL'SHTEYN, P.V. (Bel'tsy); ETLIS, S.S. (Bendery); MISHCHENKO, S.A.;  
ROYTIKH, R.M. (Tiraspol'); VASSERMAN, Z.S. (Soroki)

Role of artificial pneumothorax in the compound treatment of  
pulmonary tuberculosis. Probl. tub. no 7:24-29 '63.

(MIRA 18:1)

1. Iz Moldavskogo instituta tuberkuleza (direktor - kand. med.  
nauk M.A. Burlachenko).

VASSERSHTEYN, B.[Wasserstein, B].

Lattice parameter of uraninite as criteria for determining age.  
Biul.Kom.po opr.abs.vozr.geol.form. no.2:98-101 '57.

(Uraninite)

(MLRA 10:4)